Application No.: 10/664,796
Amendment Dated: June 8, 2005
Reply to the Office Action of February 8, 2005

Amendment to the specification

Please replace the paragraph beginning on page 14, line 7, with the following paragraph:

The generation of daughter electrons and the subsequent cascade amplification will occur provided that certain values of E and B are present. The maximum energy of the electron in the cycloidal motion is given by ~~2*m*(E/M)^2/q~~ $2*m*(E/B)^2/q$, where m is the mass of an electron and q is the charge of an electron. If this maximum energy is greater than the ionization energy of the gas, then an ionizing event can occur and a daughter electron can be generated. Hence, for a given value of B, there is a Critical value of E that is required. In a circular symmetric electric field the value of E varies with radius, and in order to obtain a large amplification the Critical value must be provided over a large part of the detection space.

- 2 -